

### **REMARKS/ARGUMENTS**

Claims 35, 39-61 and 63-70 stand rejected, with claims 36-38 and 62 objected to in the outstanding Official Action. Claims 35 and 60 have been amended and claims 59 and 69 have been cancelled. Therefore, claims 35-58, 60-68 and 70 remain in this application.

The Examiner's indication of acceptance of applicants' drawings filed October 30, 2001 is appreciated. Similarly, the Examiner's acknowledgment of applicants' claim for priority and constructive receipt of the certified copies of the priority documents is appreciated. Finally, the Examiner's consideration of the prior art submitted with applicants' Information Disclosure Statement is also appreciated.

The Patent Office objects to the Abstract and the arrangement of the specification. It is also appreciated that the Examiner has brought the Abstract and the arrangement of the specification to the applicant's attention. It is noted that the objection to the Abstract and the arrangement appear to be an indication that the originally filed specification and drawings (transmitted from WIPO) do not meet the formality requirements of the U.S. Patent and Trademark Office. The Patent Office is reminded that the U.S. Patent and Trademark Office must comply with all articles of the Patent Cooperation Treaty (PCT) including Article 27. It has been held that:

"if the rule and interpretation of the PTO conflicts with the PCT, it runs afoul of Article 27 of the PCT which provides in part:

- (1) No national law shall require compliance with requirements relating to the form or contents of the international application different from or additional

to those which are provided for in this Treaty and the Regulations.”  
Caterpillar Tractor v. Commissioner, 231 USPQ 590, 591 (EDVA 1986).

The Patent Office has referenced this decision in the Official Gazette dated September 9, 1986 (1070 TMOG 5).

As a consequence, the Patent Office (including the Chief Draftsman's Office) may not require Abstract changes, specification format changes and/or drawing corrections (including changes in paper size, margins, etc.) as long as the originally submitted documents comply with the PCT requirements. Inasmuch as this specification and these drawings were forwarded for WIPO, by definition, they meet the PCT requirements (they are not forwarded until they meet PCT requirements.). Therefore, the objection to the Abstract, the specification and the Notice of Draftsman's Patent Drawing Review is respectfully traversed and reconsideration thereof is respectfully requested.

Notwithstanding the above, applicant has included a retyped Abstract on a separate sheet, and has added headings and subheadings to the specification.

Claims 63-68 stand rejected under 35 USC §112 (second paragraph) as being indefinite. The Examiner concludes that these claims are “an omnibus type claim.” The Examiner's attention is directed to the case of *Ex parte Porter*, 25 USPQ2d 1144, 1146 (BOPAI 1992) in which the Board of Appeals confirmed that the format of claims in which a method claim depends from an apparatus claim or an apparatus claim depends from a method claim meets the requirements of 35 USC §112. The basis for this decision is that claims incorporating by reference the subject matter of a previous claim are

considered to be drafted in a "shorthand format" in order to avoid rewriting the particulars of the claim from which that claim depends. This has been held completely acceptable in the *Ex parte Porter* case.

Applying the *Ex parte Porter* case to the rejection of claims 63-68, it is noted that claim 63 recites a "semiconductor wafer checking apparatus" which includes the chemical composition analysis apparatus of claim 60. Thus, claim 63 is a shorthand version of the subject matter of claim 60 but more limited to a semiconductor wafer checking apparatus.

Claim 64 recites a data carrier carrying a program which when running on a detection apparatus is adapted to enable the apparatus to perform a method. Again, it is the method of claim 35, but the shorthand format of claim 64 obviates the need to recite all the method steps of claim 35. Similarly, claims 65-68 are shorthand versions of claims incorporating the subject matter of the claims from which they depend, i.e., claim 35.

Should the Examiner continue to contend that these rejected claims are either "omnibus type claims" or are somehow prohibited under 35 USC §112 (second paragraph), he is respectfully requested to cite a Federal Circuit case or a Board of Patent Appeals and Interferences case which is controlling authority for that precept. Additionally, the Examiner is respectfully requested to point out where and how the Board of Patent Appeals and Interferences' decision in *Ex parte Porter* has been overturned.

Claims 35, 39-58, 69 and 70 stand rejected under 35 USC §102(b) as being anticipated by Takemi (U.S. Patent 5,530,732). The Court of Appeals for the Federal Circuit has noted in the case of *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984) that "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim."

Claim 35 specifies the method step of "integrating the intensity of a portion of the diffracted radiation over a portion of said at least one diffraction peak located at said diffraction angle." The Takemi reference fails to teach integrating intensity and, in fact, teaches away from intensity integration by the use of a comparative fitting process to numerically generate a model data set which is then compared to experimentally obtained data. This comparison is an iterative process until a "best-fit" composition is achieved.

Applicants' use of an intensity integration step is more robust than the "best-fit" comparison disclosed in Takemi and reduces inaccuracies which may be associated with variations and discontinuities in the experimental data. It is noted that the only reference in Takemi to intensity is the use of intensity measurements and **not** the integration of intensity of at least a portion of the diffracted radiation over a portion of at least one diffraction peak located at the diffraction angle.

Should the Examiner believe that Takemi teaches integrating intensity as required by applicants' independent claim 35, he is respectfully requested to point out the column and line number which contains such teaching. Absent such teaching, not only does

Takemi fail to support any rejection under 35 USC §102, it clearly teaches away from applicants' claimed invention, thereby precluding any future rejection under 35 USC §103.

Claim 59 stands rejected under 35 USC §102(b) as anticipated by Ruud (U.S. Patent 5,414,747). Claim 59 has been cancelled without prejudice, thereby obviating the rejection.

Claims 60 and 61 stand rejected under 35 USC §102(e) as being anticipated by Hall (U.S. Patent 6,072,853). Claim 60, like claim 35, has been amended to more positively recite the intensity integration feature of applicants' method and apparatus. There appears to be no teaching in Hall of any intensity integration, let alone integration over a portion of the diffraction peak. Accordingly, there is no support for any future rejection of claims 60 and 61 over Hall or the Takemi references.

The Examiner's indication of allowable subject matter in claims 36-38 and 62 is very much appreciated. Applicants presume that the fourth full paragraph on page 9 of the Official Action was intended to read "Regarding claim 62" as it appears to be related to claim 62, rather than claim 38. While the indication of allowable subject matter is appreciated, all pending claims are believed allowable in view of the prior art cited thus far and therefore there is believed no need to amend claims 36-38 and 62 to read in independent form.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that claims 35-58, 60-68 and 70 are in condition for

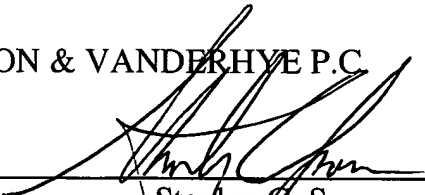
WALLIS et al  
Appl. No. 09/936,560  
May 19, 2004

allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact applicants' undersigned representative.

Respectfully submitted,

NIXON & VANDERHIVE P.C.

By:

  
Stanley C. Spooner  
Reg. No. 27,393

SCS:kmm  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100